

| SPAN A (m) | SPREAD (m) | | | | | | | | | | | | |
|---------------|------------|------|------|------|------|-------------------|------|------|------|------|------|------|--|
| | 4.6 | 6.1 | 7.6 | 9.1 | 10.7 | 12.2 | 13.7 | 15.2 | 16.8 | 18.3 | 19.8 | 21.3 | |
| 9.6 | 13.3 | 14.1 | | | | MAXIMUM SIGN AREA | | | | | | | |
| 10.7 | 11.7 | 12.8 | 14.2 | | | m ² | | | | | | | |
| 12.6 | 9.8 | 11.1 | 12.1 | 13.4 | | | | | | | | | |
| 12.7 | 11.5 | 12.4 | 13.4 | 14.4 | | | | | | | | | |
| 13.7 | 9.5 | 10.4 | 11.2 | 12.3 | 13.4 | | | | | | | | |
| 15.6 | 7.2 | 8.2 | 9.1 | 10.0 | 11.0 | 12.0 | | | | | | | |
| 15.7 | 10.1 | 11.0 | 12.0 | 13.1 | 14.3 | 15.6 | | | | | | | |
| 16.8 | 8.2 | 9.1 | 10.0 | 11.1 | 12.2 | 13.2 | 14.4 | | | | | | |
| 18.7 | 6.4 | 7.4 | 8.5 | 9.4 | 10.2 | 11.2 | 12.1 | 13.2 | | | | | |
| 18.8 | | 10.7 | 11.5 | 12.4 | 13.4 | 14.6 | 15.8 | 16.9 | | | | | |
| 19.8 | | 9.1 | 9.9 | 10.9 | 11.9 | 13.0 | 14.1 | 15.2 | 16.4 | | | | |
| 21.7 | | 7.4 | 8.3 | 9.1 | 10.1 | 11.2 | 12.3 | 13.4 | 14.5 | 15.2 | | | |
| 21.8 | | 10.2 | 11.2 | 12.2 | 13.2 | 14.1 | 15.0 | 16.1 | 17.1 | 18.3 | | | |
| 22.9 | | 8.7 | 9.7 | 10.6 | 11.5 | 12.9 | 13.4 | 14.3 | 15.3 | 16.4 | 17.4 | | |
| 24.8 | | 7.8 | 8.7 | 9.7 | 10.8 | 11.7 | 12.2 | 13.6 | 14.6 | 15.6 | 16.6 | 17.6 | |

MASS = 195 kg/m².

| TYPE # | SPAN A (m) | | BEAM HALF B FOR MAX. SPAN | |
|--------|----------------|---|---------------------------|------|
| | | | DIMENSIONS (m) | (mm) |
| S-1310 | 9.6 THRU 12.6 | 3 | 225 x 150 x 6.1 m | 255 |
| S-1310 | 12.7 THRU 15.6 | 3 | 240 x 150 x 7.6 m | 255 |
| S-1310 | 15.7 THRU 18.7 | 3 | 265 x 160 x 9.1 m | 255 |
| S-1312 | 18.8 THRU 21.7 | 7 | 355 x 230 x 10.7 m | 305 |
| S-1312 | 21.8 THRU 24.8 | 7 | 405 x 265 x 12.2 m | 305 |

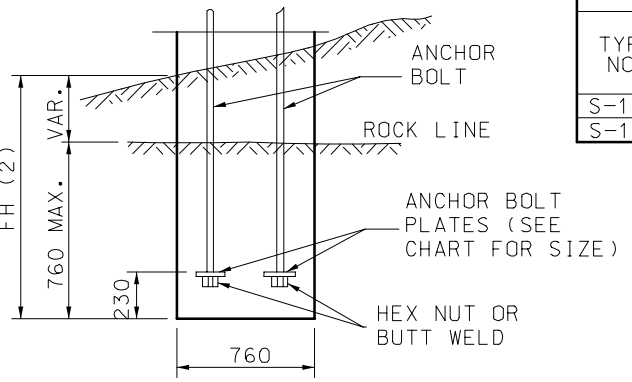
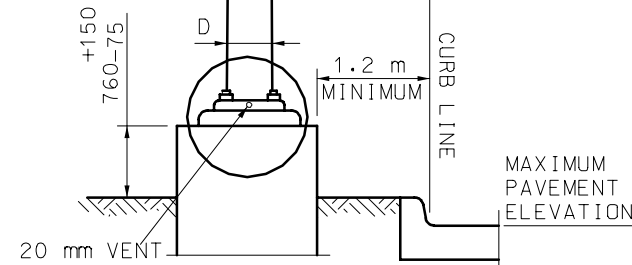
NOTES:
DESIGN SPANS IN EVEN 0.1 m INCREMENTS. SPECIFY SPAN A REQUIRED. FOR SPAN LENGTHS LESS THAN MAXIMUM FOR A DESIGNATED RANGE, THE LARGER DIAMETER OF THE CROSS BEAM IS HELD AND THE SMALLER DIAMETER WILL INCREASE AS LENGTH IS REDUCED. DESIGN POSTS IN EVEN 0.3 m INCREMENTS.

| ESTIMATED QUANTITIES FOOTING | | | | | | | |
|------------------------------|---------|------------------|-------------|-------------------|---------|-------|------|
| TYPE NO. | DIA. FD | CLASS B CONCRETE | | REINFORCING STEEL | | | |
| | | 0.3 m DEPTH | 25 mm DEPTH | #16 | #13 (3) | TOTAL | |
| S-1310 | 760 | 0.132 | 0.011 | 6 | 2665 | 10 | 2180 |
| S-1312 | 760 | 0.132 | 0.011 | 6 | 3120 | 12 | 2180 |

(3) ESTIMATED QUANTITY FOR REINFORCING STEEL IS BASED ON A 1:2 (V:H) SLOPE.

| MODIFIED FOOTING IN SOLID ROCK | | |
|--------------------------------|------------------|------------------------|
| TYPE NO. | ANCHOR BOLT (mm) | ANCHOR BOLT PLATE (mm) |
| S-1310 | 38 DIA. | 90 x 90 x 20 |
| S-1312 | 44 DIA. | 90 x 90 x 20 |

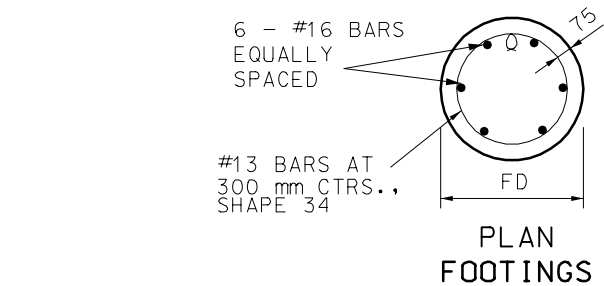
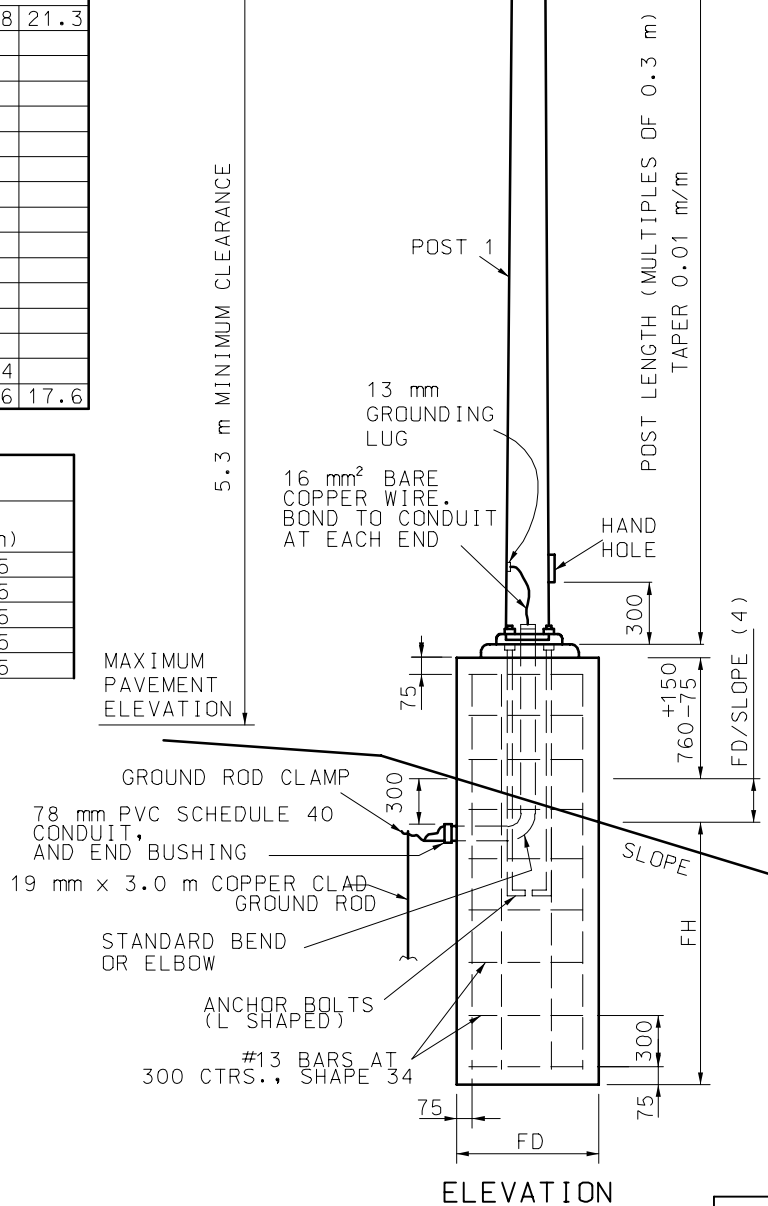
(1) ANCHOR BOLT LENGTH AS REQUIRED



REINFORCEMENT PLACED SAME AS STANDARD FOOTING. CONCRETE TO BE POURED TO EXCAVATED FACE OF ROCK.

MODIFIED FOOTING IN SOLID ROCK

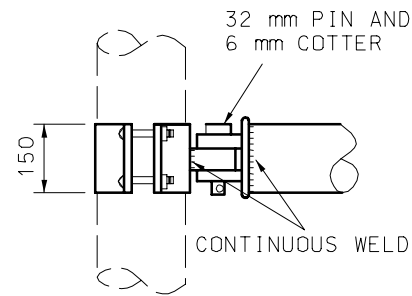
(2) NOT TO EXCEED 1525 mm FOR S-1310. NOT TO EXCEED 1980 mm FOR S-1312.



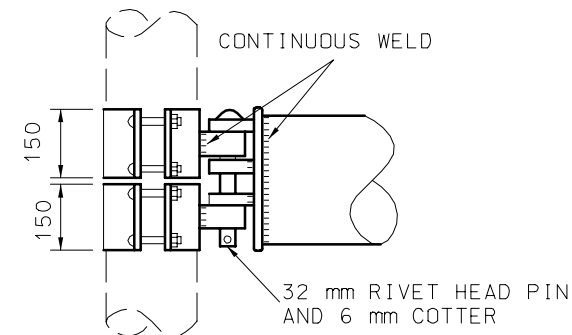
(4) EXAMPLE: IF SLOPE IS 1:6, THE DENOMINATOR IS 6

GENERAL NOTES:
ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.
ALL SIGNS CENTERED VERTICALLY.

| MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION | | | |
|---|-----------------------|--|-----|
| | | HIGHWAY SIGNING TUBULAR SUPPORT STEEL - TYPE S ONE TUBE | |
| DATE: _____ | EFFECTIVE: 04-01-2005 | M903.05H | 1/2 |

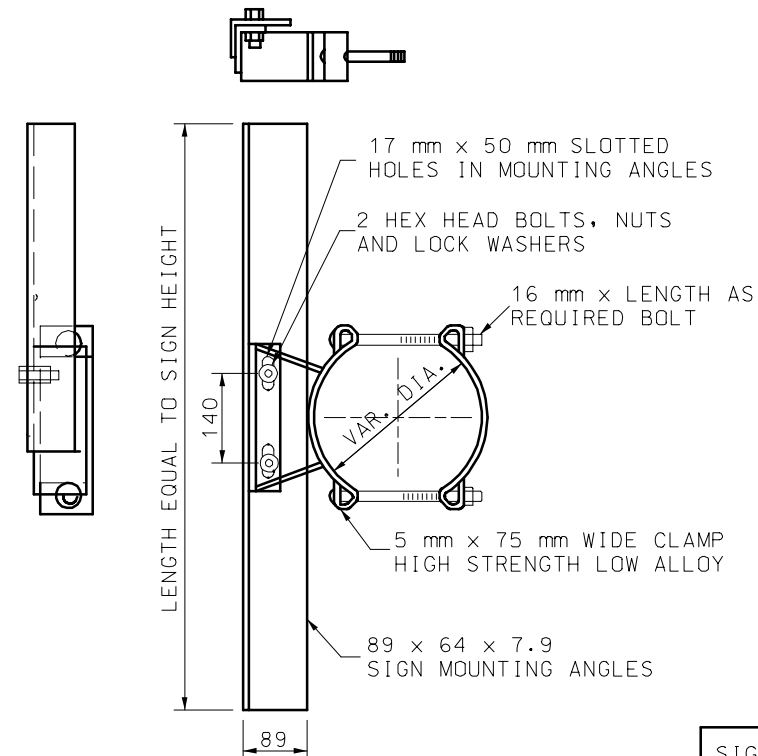


TUBE DIAMETER EQUAL TO
OR LESS THAN 265 mm
AT CENTER OF SPAN



TUBE DIAMETER GREATER THAN 265 mm
AT CENTER OF SPAN

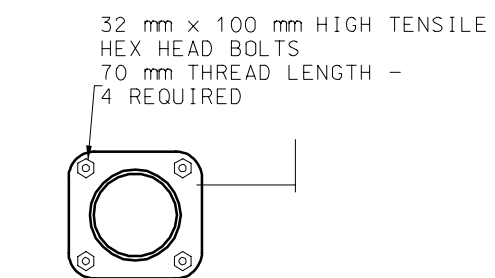
BEAM CLAMP DETAIL



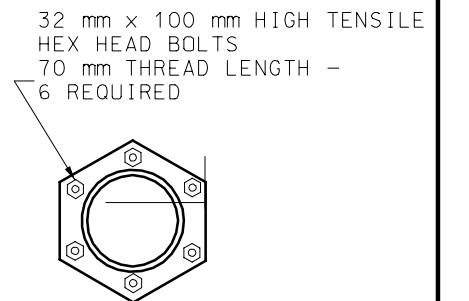
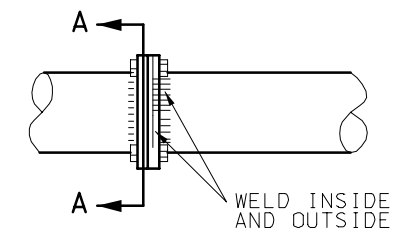
NOTE:
MINIMUM OF TWO BRACKETS ARE REQUIRED
FOR SIGNS OVER 1050 mm IN LENGTH.

GALVANIZED SIGN BRACKET ASSEMBLY

| SIGN HEIGHT (m) | MAXIMUM METER OF SIGN WIDTH PER BRACKET |
|--------------------|---|
| ≤ 1.2 | 4.0 |
| 1.5 | 2.4 |
| 1.8 | 1.5 |



SECTION A-A



SECTION B-B

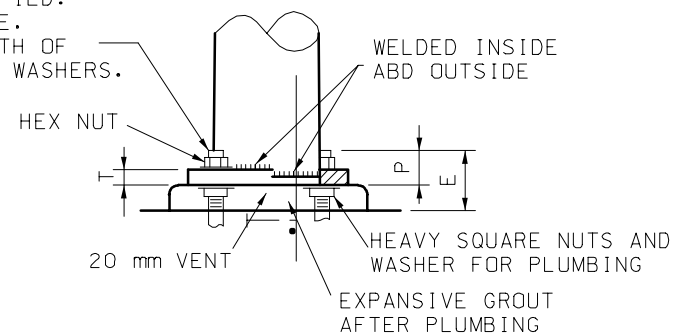
TUBE DIAMETER 240 mm
AND UNDER

TUBE DIAMETER
OVER 240 mm

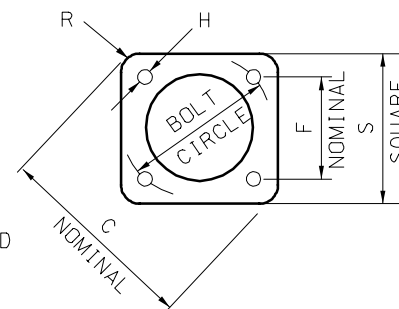
BEAM SPLICE DETAIL

| POST BASE DIMENSIONS AND DATA | | | | | | | | | | | | |
|-------------------------------|-------------|-----|-----|----|-----|----|-----|----|-----|-------------|---------|-----|
| TYPE NO. | BOLT CIRCLE | C | F | H | S | R | P | T | E | ANCHOR BOLT | FOOTING | |
| | | | | | | | | | | | FH | FD |
| S-1310 | 345 | 445 | 245 | 45 | 360 | 80 | 95 | 38 | 180 | 38 x 1525 | 1525 | 760 |
| S-1312 | 405 | 535 | 285 | 55 | 430 | 95 | 115 | 50 | 190 | 44 x 2285 | 1980 | 760 |

ANCHOR BOLTS AS SPECIFIED.
THREAD UPPER PORTION E.
GALVANIZE ENTIRE LENGTH OF
BOLT AND ALL NUTS AND WASHERS.



ELEVATION



PLAN

POST BASE DETAILS

GENERAL NOTES:

ALL DIMENSIONS SHOWN ARE IN mm UNLESS OTHERWISE NOTED.

| MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION | | | |
|--|-----------------------|--|---------------------------|
| | | HIGHWAY SIGNING TUBULAR SUPPORT STEEL - TYPE S ONE TUBE | |
| DATE: _____ | EFFECTIVE: 04-01-2005 | M903.05H | <div>2</div> <div>2</div> |